

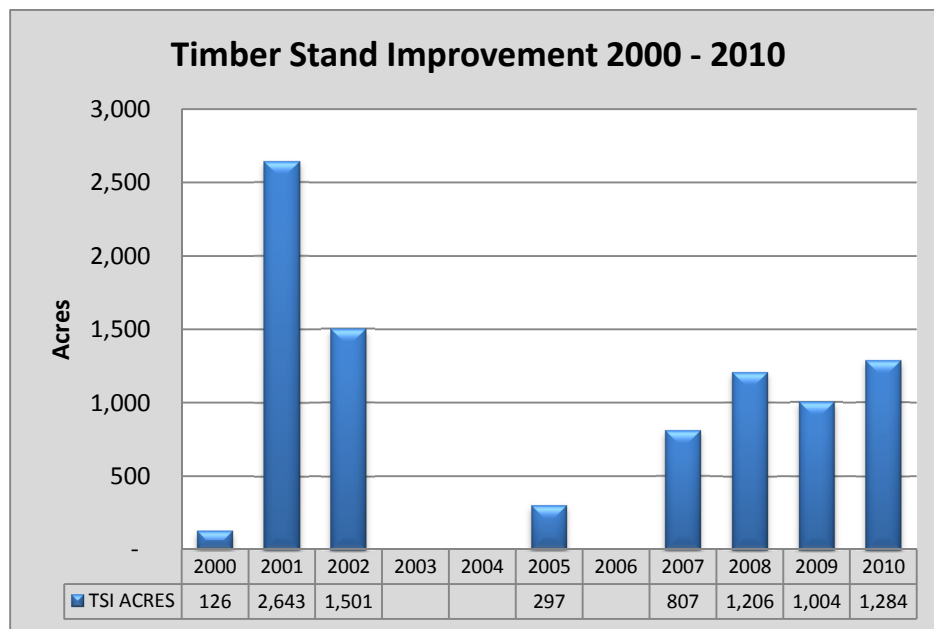
## Items #40: TSI Stocking Control

**Evaluation Question:** Are the Forest Plan projections of treatment for stocking control being met with Timber Stand Improvement treatment?

**Methods:** Acres of timber stand improvement

**Data Sources:** FACTS Query

**Evaluation:**



**Figure 1: Timber Sale Improvement in acres from 2000 to 2010, Flathead NF**

Timber stand improvement (TSI) treatment on the Flathead consists primarily of pre-commercial tree thinning. A limited amount of pruning of western white pine also occurs. The funding for these treatments has steadily declined since the late 1990s, with no funding received during 2003, 2004 or 2006. This reduction in funding is in part due to the priority placed on post-fire reforestation in the budget allocation process, at the expense of tree improvement treatments.

The other major reason for a reduction in TSI funding was the listing of Canada lynx as a threatened species in 2000. The lynx conservation strategy severely restricts treatment of young, dense forest stands, as these stands provide habitat for snowshoe hare, an important food source for the lynx. These are the very stands that would benefit from timber stand improvement treatments, to reduce tree competition and provide for healthy young free-growing stands. Beginning in 2007, revised conservation guidelines allow for limited thinning of lynx habitat, primarily in the wildland urban interface.

The average timber stand improvement treatment for the decade is 806 acres. The average over the last 3 years is 1,165. This increase over the last few years is reflective of the program shift towards thinning in the wildland urban interface, compatible with lynx management direction.

The Forest Plan as amended projected 1,500 acres of pre-commercial thinning per year. The trend is clear that opportunity and funding for these treatments is limited, and will likely be budget limited into the future.

Current thinning need on the forest is estimated at approximately 34,000 acres. There continues to be an increasing backlog of areas which would benefit from reducing total tree stocking. In the absence of thinning, trees in these stands will have increasing competition, reduced growth, and be stressed and more susceptible to the effects of drought, and insect and disease activity. Eventually these stands may stagnate – in the case of lodgepole pine, “dog hair” thickets may result. Other stands with a mixture of tree species will eventually “self thin”, with smaller and less thrifty trees dying off, making room for other more dominant trees to grow.

Leaving these stands unthinned has short-term benefits in providing lynx feeding habitat, but will also have long-term consequences in terms of the health, growth and fuel loading of the forest landscape.

**Recommended Actions:** Continue to monitor